REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the following remarks.

The Applicants acknowledge with appreciation the indication in the Office Action that claims 56-57, 68, 77 and 80 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 45, 49-51, 56-69, and 73-74 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 45, 54-57, 60-66, 68, 70, 73 and 74 of copending Application No. 10/577,710 (it is noted that pg. 2 of the Office Action states that only "45, 50-51, 69 and 73-74" are subject to the double patenting rejection over claims "45 and 73-74" of the related application, but the analysis on pgs. 3-4 identifies additional claims). Claims 45, 49-51, 55, 58-67, 69, 73-74, 77, and 81-85 were rejected under 35 U.S.C. § 102(b) as being anticipated by Jang (US 5,579,373) (hereinafter, "Jang"). The Applicants respectfully traverse based on the points set forth below.

With respect to the double patenting rejections, a Terminal Disclaimer is submitted herewith to overcome this rejection.

Accordingly, it is respectfully submitted that the double patenting rejections of claims 45, 49-51, 56-69, and 73-74 should be withdrawn.

With respect to the 35 U.S.C. § 102(b) rejections of claims 45, 49-51, 55, 58-67, 69, 73-74, 77, and 81-85 as being anticipated by Jang, it is respectfully submitted that Jang does not disclose, either expressly or inherently, each of the recited features of these claims for at least the following reasons.

By way of review, Jang relates to a cellular radio telephone system including at least one mobile communication station and particularly to a transmission power control method for dynamically adjusting transmission power of a base station and a mobile station in a digital cellular radio telephone system as well as in an analogue system (see column 1, lines 7-12). As is apparent from column 2, line 54 to column 3, line 15, Jang allows a reduction of the frequency-reuse distance of described conventional systems which is significantly larger than one.

Jang discloses (see column 6, line 66 to column 7, line 18) that the traffic channels within a radio cell are grouped into several groups according to the transmission output strengths. The location groups are generally formed within a single cell by estimating the mobile station distribution within the cell and properly adjusting several transmission output levels on the base station for form several location groups around the base station. An example of forming a distinct location group being sent corresponding transmission output levels is shown in FIG. 2 of Jang.

Concerning the allocation of the channels to the mobile stations, the RSSI level of the individual mobile station is measured and reported to the base station which assigns the respective mobile station to a location group based on an RSSI level map as shown in table 2 (see column 8, lines 1 to 23). Accordingly, the location group to which the mobile terminal is assigned determines the transmission power level for the mobile terminal as shown in table 1 of Jang.

As becomes apparent from the summary of Jang, it is suggested to group several channels into groups and to assign certain transmission power levels to the respective location groups. Throughout the whole description of Jang, there is made reference to only one single cell and the

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use of <u>location groups within the single cell</u> is described (see, e.g., col. 6, lines 12-16, disclosing "FIG. 2 is an example of forming location groups of a mobile station according to the <u>present invention</u>. The location groups are formed by dividing into a plurality of groups the traffic channels around a base station <u>within one cell</u> site according to the predetermined power levels.")

However, there is no disclosure, either expressly or inherently, in Jang of coordinating <u>more than a single radio cell</u>, i.e., the cells of a <u>cell cluster</u> or the sectors of a <u>sector cluster</u>, as recited in each of the independent claims. In fact, the Office Action (pg. 5, top) acknowledges that Jang only discloses the use of location groups within <u>a single cell</u> in the rejection of claim 1, by stating:

> "...grouping said subcarrier blocks into a plurality of subcarrier block sets in each radio cell of the cell cluster (see fig. 2, 12B and col. 6, lines 13-20 and col. 7, lines 1-45; the location groups are formed by dividing into a plurality of groups the traffic channels around a base station <u>within one cell site</u>; Z1-Z8 and ch1 to ch40) (emphasis added)."

The Office Action's characterization of Jang as disclosing a method used within <u>one</u> cell site is entirely consistent with the disclosure of Jang, which repeatedly describes how "<u>the present invention</u>" relates to "<u>one cell site</u>" (see, e.g., col. 6, lines 12-16; FIG. 2). Hence, Jang is unrelated to the subject matter recited by the independent claims, which are each related to coordinating the distribution of interference in cell clusters or sector clusters, each of which is defined in the claims as including more than one radio cell (see, e.g., claim 45: "...wherein a <u>number of adjacent radio cells build a cell cluster</u>..."; claim 51 "...wherein a sector of a radio cell and <u>its adjacent sectors in neighboring radio cells build a sector cluster</u>...).

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Accordingly, it is respectfully submitted that Jang fails to disclose each of the recited features of the independent claims, e.g., "...assigning the plurality of transmission power ranges to the subcarrier block sets of radio cells of the cell cluster..." as recited by claim 45. Therefore, the rejections of claims 45, 50, 51, 69, 73, 74 and 85, and all dependent claims therefrom, should be withdrawn for at least this reason.

Furthermore, it is noted that referring to a frequency reuse factor of significantly larger than one (even if it is reduced to a reuse factor of two) as taught in column 2, line 54 to column 3, line 15 of Jang implies that adjacent cells use different frequencies (i.e., subcarriers on different frequencies). In contrast, the methods and apparatuses recited by the Applicants' independent claims assume a frequency reuse factor of one, as recited, for example, by the feature of "wherein the radio cells of the cell cluster each comprise corresponding subcarrier block sets having the same subcarrier blocks," as recited by claim 45. Thus, in the methods and apparatuses recited by the Applicants' independent claims, within the cells of the cell cluster (or sectors of a sector cluster) the same subcarrier blocks, i.e., the same (carrier) frequencies, are used.

Accordingly, Jang also does not disclose, either expressly or inherently, at least this recited feature of Applicants' independent claims as well. Therefore, the rejections of Applicants' claims 45, 50, 51, 69, 73, 74 and 85, and all dependent claims therefrom, should be withdrawn for at least this reason as well.

In addition, claim 45 explicitly recites an assignment rule for assigning the transmission power ranges to the subcarrier block sets of radio cells of the cell cluster within the last method operation. More specifically, claim 45 recites the feature of:

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"...assigning the plurality of transmission power ranges to the subcarrier block sets of radio cells of the cell cluster, such that:

in each radio cell of the cell cluster, each of said plurality of transmission power ranges is mapped to one of the subcarrier block sets of a respective radio cell, and

each of said plurality of transmission power ranges is mapped to one of said corresponding subcarrier block sets among the radio cells of said cell cluster."

Jang does not disclose this assigning operation recited by claim 45.

The Office Action (pg. 5, bottom) alleges that Jang discloses this assigning operation at "col. 2, lines 55-65; col. 6, lines 20-57 and col. 7, lines 1-30." However, none of these cited portions of Jang disclose the recited assigning operation of Applicants' claim 45, above. Col. 2, lines 55-65 of Jang simply discloses that "when a cell plan of a base station is developed based on these foregoing conventional transmission power control techniques, a coverage radius of a radio frequency channel of a base station should be calculated using its maximum transmission power," and sets forth an equation for determining a "frequency reuse distance" in a twelve-pattern cluster. Col. 6, lines 20-57 of Jang describes the flow chart shown in FIG. 3, which describes how to provide transmission power control. However, nothing in either FIG. 3 nor the description thereof in col. 6, lines 20-57 disclose each of the assigning operation features recited in Applicants' claim 45, for example, the recited feature of "...each of said plurality of transmission power ranges is mapped to one of said corresponding subcarrier block sets among the radio cells of said cell cluster." Moreover, col. 7 lines 1-20 of Jang describes "Table 1," which depicts "Transmission output (dBw)" assigned to each location group shown in FIG. 2. However, transmission outputs, which are individual values (e.g., 35 dBW, 37 dBW, etc.), are not "transmission power ranges," as recited by Applicants' claim 45, and furthermore, are not

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"mapped to one of said corresponding subcarrier block sets among the radio cells of said cell cluster," as also recited by Applicants' 45.

Each of the other independent claims recite substantially similar features to the assigning operation features recited by Applicants' claim 45, discussed above.

Accordingly, Jang also does not disclose, either expressly or inherently, at least this recited feature of Applicants' independent claims as well. Therefore, the rejections of Applicants' claims 45, 50, 51, 69, 73, 74 and 85, and all dependent claims therefrom, should be withdrawn for at least this reason as well.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

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